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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,663	08/16/2006	Lewis Cheng	102907-438-NP	4591

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EXAMINER

FLETCHER, JERRY-DARYL

ART UNIT

PAPER NUMBER

3715

MAIL DATE

DELIVERY MODE

06/08/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/551,663

**Applicant(s)**

CHENG ET AL.

**Examiner**

JERRY-DARYL FLETCHER

**Art Unit**

3715

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is in response to applicant's submission received on 12/23/2009. Claims 1 and 4 have been amended while claims 2-3 and 5-6 have remained as originally presented. Claims 1-6 are pending in the current application and are addressed below.

#### ***Drawings***

2. The drawings are objected to because they contain improperly shaded figures. Furthermore, the text in Figures 3-8 is illegible. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,820,386 to Sheppard (Sheppard), in view of US 20030077559 to Braunberger et al. (Braunberger), and US 6,146,148 to Stuppy (Stuppy), and US 5,954,512 to Fruge (Fruge).

**With Respect To Claims 1-2, 4-6**

Sheppard teaches an adaptive learning system for presenting an appropriate topic and question to a user comprising a processor configured to:

generate and store in a database a set of hierarchical topics having a plurality of questions associated with each one of said topics (col. 3, ll. 6-14);

determining a relevant topic for a user from said set of hierarchical topics by culling said set of topics to determine one or more eligible academic topics and evaluating for relevance said one or more academic topics using heuristic relevance ranking including Failure relevance [claim 2] to determine said relevant academic topic (col. 7, ll. 35-48; col. 8, ll. 9-23);

determining an appropriate question for said user by searching the database for a question associated with a topic and randomly generating a question associated with said topic (col. 7, ll. 49-52); and

adjusting a user's score in response to input received by the user in response to the questions (col. 7, ll. 53-55).

Sheppard fails to specifically teach that each of the questions has an assigned difficulty value, that an adjustable state level value for a user based on their topic performance consistency is determined, that an adjustable water level that is initialized to and has a predetermined range of values based on the user's proficiency in at least a subset of the topics is determined or the specific determination of the appropriate question by using a water level value.

Braunberger discloses a system for providing educational material to a user wherein questions are associated with topics, wherein said questions have assigned difficulty values, and that said values are used to determine which questions are presented to said user (par. 0031).

Stuppy teaches a system for providing educational material to a user wherein an adjustable state level based on a user's topic performance consistency is determined, and that this level is used to determine the educational material provided to the user (col. 4, ll. 40-61).

Frugé discloses a behavior tracking system wherein a progress marker is initialized, and then moved in one direction for positive responses from a user, and moved in an opposite direction in response to negative responses from a user (col. 4, ll. 12-16).

**OFFICIAL NOTICE** is taken that the use of ranges such as 0-100 for academic difficulty scoring was old and well known at the time of applicant's invention [claim 4].

The applicant's claimed adjustable water level based on a user's proficiency is interpreted as an adjustable marker to display the user's performance (progression or regression) based on the user's responses.

Furthermore, the applicant's claimed process for determining an appropriate question is interpreted as a matter of design choice. The applicant's claimed process utilizes the user's water level, which is based on the user's proficiency, thus the applicant's claimed process essentially provides the user with a question commensurate with the user's level of proficiency. By either using the claimed process or by using the process of Stuppy, wherein a user is provided with questions based on their level of proficiency, the objective of providing a user with a question commensurate with the user's level of proficiency is accomplished [claims 5-6].

It would have been obvious to one possessing ordinary skill in the art, at the time of the invention, to have combined the teachings of Sheppard, Braunberger, Stuppy and Fruge in order to yield the predictable result of providing a user with an adaptive learning system that provided the user with educational material commensurate with the user's demonstrated level of proficiency in a topic. By supplementing Sheppard with the known teaching of questions with assigned difficulty values, as taught by Braunberger, and the determination of an adjustable user state level that is based on user consistency and proficiency, as taught by Stuppy, and the use of a progress marker for tracking a user's progression or regression, as taught by Fruge, it would have been obvious to have used the adjustable user state level of Stuppy to have determined the question difficulty of the questions to be presented to the user, and to have used the

progress marker of Fruge to have displayed the user's progression or regression based on the user's responses to the questions.

With Respect To Claim 3

Sheppard, Braunberger, Stuppy and Fruge fail to specifically teach the use of a multiplier value, or the specific relationships defined for the state level, the adjustment in the water level and the correctness of the response provided, however, Fruge discloses a relationship wherein positive and negative responses are oppositely reflected on the progress marker (see rejection of claim 1 above).

The use of the specific relationships claimed by the applicant or the teachings of Fruge are interpreted as a matter of design choice that fail to patentably distinguish the claimed invention from the prior art of record since the objective of providing opposed adjustments to the water level (progress marker) for positive and negative responses is attained.

It would have been obvious to one possessing ordinary skill in the art, at the time of the invention, to have used the system of Fruge to demonstrate the opposed motion of the progress bar in response to correct and incorrect user responses in order to provide a user with a visual display of their performance.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRY-DARYL FLETCHER whose telephone number is (571)270-5054. The examiner can normally be reached on Monday to Friday 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kathleen Mosser/  
Primary Examiner, Art Unit 3715

/J.D.F./  
Examiner, Art Unit 3715